

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,770	02/14/2001	Andrew G. Harvey	50325-0509 (3255)	2267

29989 7590 08/13/2004

HICKMAN PALERMO TRUONG & BECKER, LLP
1600 WILLOW STREET
SAN JOSE, CA 95125

EXAMINER

ZHONG, CHAD

ART UNIT PAPER NUMBER

2152

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,770

Applicant(s)

HARVEY ET AL.

Examiner

Chad Zhong

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Fig. 1B is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL ACTION

1. This action is responsive to communications: Amendment, filed on 07/23/2004. This action has been made final.

2. Claims 1-64 are presented for examination. In amendment A, filed on 07/23/2004:

Claims 5, 7, 18, and 21 are amended.

Claims 25-64 are new.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-8, 15-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Amberden, US 2002/0103818.

5. As per claim 1, Amerden teaches a method of automatically subscribing a network device to a plurality of events applicable to a logical group of which the network device is a member, comprising the computer- implemented steps of:

creating and storing a mapping that associates a plurality of network devices with the logical group and that associates the logical group with one or more events that can pass over an event bus to which the network device is logically coupled (pg 1, [0012]; pg 5, [0066]);

receiving a device identifier of one of the network devices in the logical group (pg 7, [0148], [0149]);

receiving an event that is among the one or more events that are in the mapping (pg 9, [0189], [0190]; pg 11, [0213],[0214]);

based on the mapping, sending information to the network device that causes the network device to receive all events that are associated in the mapping with the logical group in which the network device participates (pg 9, [0189], [0190]; pg 11, [0213],[0214]);

6. As per claim 2, Amerden teaches a method as recited in Claim 1, wherein sending information to the network device that causes the network device to receive all events comprises the steps of subscribing the network device to all the events that are in the mapping and associated with the network device at an event gateway that is coupled to the event bus (pg 12, [0027], [0029]).

7. As per claim 3, Amerden teaches a method as recited in Claim 1, further comprising the steps of receiving application specific mapping information from an application program and updating the mapping using the application specific mapping information (pg 12, [0227]; pg 13, table 1.1; pg 8, [0153], [0155]; pg 7, [0143], [0145]).

8. As per claim 4, Amerden teaches a method as recited in Claim 2, further comprising the steps of receiving application specific mapping information from an application program in XML

format using a data access component that transforms the application specific mapping information from XML format into a canonical object model format (pg 9, [0185]-[0188]; pg 10, [0205]).

9. As per claim 5, Amerden teaches the method as recited in Claim 1, wherein the step of creating and storing comprises the steps of receiving information identifying the mapping in a data store that associates the plurality of network devices with the logical group and that associates the logical group with the one or more events (pg 10, [0192]; pg 9, [0185]-[0188]; pg 8, [0153], [0155]).

10. As per claim 6, Amerden teaches a method as recited in Claim 1, wherein sending information to the network device that causes the network device to receive all events comprises the steps of generating, based on the mapping, a list of all the events that are in the mapping and associated with the network device, and sending the list to an event gateway that is coupled to the event bus (pg 7, [0148]-[0151]; pg 12, [0229]).

11. As per claim 7, Amerden teaches a method as recited in Claim 1, wherein the mapping comprises an association of stored values that identify for each network device, an application, a group identifier, an event of the one or more events, a network device identifier, one or more published events, and one or more subscribed events (pg 7, [0148]-[0151]; pg 8, [0153], [0155]; pg 12, [0227]; pg 13, table 1.1).

12. As per claim 8, Amerden teaches a method as recited in Claim 1, wherein sending information to the network device that causes the network device to receive all events comprises the steps of:

receiving a call from a calling application program to a Resolve method, wherein the call

Art Unit: 2154

includes one or more selection criteria selected from among device identifier, event subject, or action desired (pg 12, [0227]; pg 11, [0213]);

generating, based on the mapping, a list of all the events that are in the mapping and associated with the network device based on the selection criteria;

returning the list to the calling application program (pg 10, [0192]; pg 11, [0210], [0213]).

13. As per claim 15, Amerden teaches a method as recited in Claim 1, wherein receiving a device identifier comprises receiving a subscribe request that includes a router identifier for one of the network devices in the logical group and an event identifier (pg 8, [0153], [0155]).

14. As per claim 16, Amerden teaches a method as recited in claim 15, wherein sending information to the network device that causes the network device to receive all events that are associated in the mapping with the logical group in which the network device participates ordering comprises looking up the router identifier and the event identifier in the mapping and receiving a subject list in response thereto (pg 10, [0206]; pg 11, [0213]).

15. As per claim 17, Amerden teaches a method as recited in Claim 15, wherein sending information to the network device that causes the network device to receive all events that are associated in the mapping with the logical group in which the network device participates ordering comprises looking up the router identifier and the event identifier in the mapping, receiving a subject list in response thereto, and applying the subject list to the network device at the event gateway (pg 10, [0206]; pg 11, [0213], [0214]; pg 12, [0229]).

16. As per claim 18, Amerden teaches a method as recited in Claim 1, wherein receiving the device identifier comprises receiving a publish request that includes a router identifier for one of the network devices in the logical group or- a group identifier of the logical group, and an event identifier (pg 8, [0153], [0155]).

17. As per claim 19, Claim 19 is rejected for the same reasons as rejection to claim 16 above.

20. As per claim 20, Claim 20 is rejected for the same reason as rejection to claim 17 above.

21. As per claim 21, Amerden teaches a method of automatically subscribing a router in a network to a plurality of events applicable to a logical group of which the router is a member, comprising the computer-implemented steps of:

creating and storing a mapping that associates a plurality of routers with the logical group and that associates the logical group with one or more events that can pass over an event bus to which the router communicates (pg 5, [0066]);

receiving a subscribe request from the router that includes a router identifier that uniquely identifies the router and an event identifier (pg 7, [0143], [0148], [0149]; pg 8, [0153], [0155]);

looking up the router identifier and the event identifier in the mapping (pg 11, [0213]);

receiving a subject list in response thereto, wherein the subject list identifies all subjects to which the router should subscribe (pg 11, [0213], [0214]);

sending information to the event bus that requests the event bus to subscribe the router to all events in the subject list (pg 11, [0213], [0214], [0227]).

22. As per claims 22-24, claims 22-24 are rejected for the same reasons as rejection to claim 21 above.

23. As per claims 25-31, claims 25-31 are rejected for the same reasons as rejection to claims 2-8 above respectively.

24. As per claims 35-43, claims 35-43 are rejected for the same reasons as rejection to claims 12-20 above respectively.

25. As per claim 44-50, claims 44-50 are rejected for the same reasons as rejection to claims 21, 3-8 above respectively.

26. As per claim 54-62, claims 54-62 are rejected for the same reasons as rejection to claims 12-20 above respectively.

27. As per claim 63, Amberden teaches a network comprising:
the apparatus of claim 24;
the network device (Fig 12; [0040]; [0043]);
the logical group (pg 8, [0158-0161]; [0155]); and
one or more devices that generate the plurality of events ([0207]; [0144]).

28. As per claim 64, Amberden teaches a computer-readable medium carrying a mapping service client Application Program Interface (API) comprising: instructions for a set of invokable operations that allow a client application programs access to a mapping service runtime, wherein the invokable operations including at least

an attach operation that allows the client to open a persistent connection to the mapping service runtime, the attach operation receives one parameter, having at least an application context that is used to determine a mechanism available to the client (pg 3, [0049]);

a detach operation that tears down the persistent connection created by the attach operation (pg 11, [0210]);

an open operation that creates one or more non-persistent channels within the connection that is created by the attach operation (pg 8, [0160]);

a close operation that terminates the one or more non-persistent channels that are created by the open operation (pg 11, [0210]); and

a resolve operation that returns to the client a set of events (pg 7, [0144]), wherein the set of events is a combination of zero or more publish events and zero or more subscribe events,

wherein the combination included in the set of events returned by the resolve operation is based on a specified selection criteria, and wherein the selection criteria includes at least a device identification, an event subject, and an action desired (pg 13-17, tables); and

wherein the mapping runtime service causes the client to receive all events that are associated with a logical group that includes the client, without the client having to store a list of the logical groups in which the client participates and without having to know what events pertain to the client or the logical groups (pg 13-17, tables; pg 3, [0047]; Fig 12).

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amberden, US 2002/0103818 in view of 'Official Notice'.

31. As per claim 9, Amberden teaches a method as recited in Claim 1, further comprising the steps of creating and storing the mapping using a plurality of programmatic objects that conform to an object model consisting of:

a group item class, a device class, an application class; and an event class (pg 7, [0142]; pg 9, [0185]-[0188]).

32. Amberden does not teach wherein objects based on the classes themselves can be instantiated from the classes. However, 'Official Notice' is taken by the Examiner that instantiation of objects from classes is notoriously well known. It would have been obvious

Art Unit: 2154

to have used a instantiation step for the objects of their perspective classes for the current invention, because doing so would be less burdening for the individual units, through instantiation, creation new classes which take up additional CPU time would be avoided. Furthermore, Amberden teaches the idea of abstract data types, which would render the instantiation step possible for Amberden's system.

33. As per claim 10, Amberden teaches a method as recited in Claim 1, further comprising the steps of a subscribed mapping attribute value that specifies one or more subscribe events, and a publisher mapping attribute value that specifies one or more publish events (pg 9, [0186]-[0188]). The remaining section of claim 10 are rejected for the same reasons as claim 9 above.

34. As per claim 11, Claim 11 is rejected for the same reasons as claim 10 above.

35. Claim 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amberden, US 2002/0103818 in view of 'Official Notice', in further view of Hayes et al. (hereinafter Hayes), WO 95/14266.

36. As per claim 12, Amberden does not teach a method of claim 1, further comprising steps of a subscribed default flag value that indicates whether an external computation is carried out to determine the subscribe events.

37. Hayes teaches a method of claim 1, further comprising steps of a subscribed default flag value that indicates whether an external computation is carried out to determine the subscribe events (pg 4, lines 20-37).

38. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Amberden and Hayes because they both dealing with updating and retrieval of centralized table in a remote location. Furthermore, the teaching of Hayes to

Art Unit: 2154

allow a method of claim 1, further comprising steps of a subscribed default flag value that indicates whether an external computation is carried out to determine the subscribe events would improve the security for Amberden's system by setting up access levels with the usage of the flags. The remaining sections of claim 12 are rejected for the same reasons as claim 10 above.

39. As per claim 13, Amberden does not teach a method as recited in Claim 12, further comprising the steps of determining whether the subscribed default flag value is clear, and if so, sending information to the network device that causes the network device to receive all events that are associated in the mapping with the logical group in which the network device participates.

40. Hayes teaches a method as recited in Claim 12, further comprising the steps of determining whether the subscribed default flag value is clear, and if so, sending information to the network device that causes the network device to receive all events that are associated in the mapping with the logical group in which the network device participates (pg 4, lines 20-37).

41. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Amberden and Hayes because they both dealing with updating and retrieval of centralized table in a remote location. Furthermore, the teaching of Hayes to allow a method as recited in Claim 12, further comprising the steps of determining whether the subscribed default flag value is clear, and if so, sending information to the network device that causes the network device to receive all events that are associated in the mapping with the logical group in which the network device participates would improve the security for Amberden's system by setting up access levels with the usage of the flags.

42. As per claim 14, Amberden does not teach a method as recited in Claim 12, further

Art Unit: 2154

comprising the steps of determining whether the subscribed default flag value is set, and if so, sending information to the network device that causes the network device to receive one or more events based on computing a new list of events using an external algorithm.

43. Hayes teaches a method as recited in Claim 12, further comprising the steps of determining whether the subscribed default flag value is set, and if so, sending information to the network device that causes the network device to receive one or more events based on computing a new list of events using an external algorithm (pg 4, lines 20-37).

44. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Amberden and Hayes because they both dealing with updating and retrieval of centralized table in a remote location. Furthermore, the teaching of Hayes to allow a method as recited in Claim 12, further comprising the steps of determining whether the subscribed default flag value is set, and if so, sending information to the network device that causes the network device to receive one or more events based on computing a new list of events using an external algorithm would improve the security for Amberden's system by setting up access levels with the usage of the flags.

45. As per claim 32-34, claims 32-34 are rejected for the same reasons as rejection to claims 9-11 above respectively.

46. As per claim 51-53, claims 51-53 are rejected for the same reasons as rejection to claims 9-11 above respectively.

Conclusion

47. Applicant's remarks filed 07/23/04 have been considered but are found not persuasive.

48. In the remark, the Applicant argued in substance that the groups of Amberden are groups

of table fields, while in contrast the claimed “logical groups” are “groups of network devices”.

In response to Applicant’s argument, Amberden does teach the above limitation.

Referring to pg 3, [0040] and [0043] for example, Amberden explicitly mentions network computers, which are essentially network devices, the table fields Applicant mentioned are merely entries by various network devices on the network. Further, various groups of users are clearly defined for Amberden’s system on page 8 of specification, wherein various users are grouped into logical groups and the groups comprises of plurality of users. Thus Amberden does teach of logical groups made up of network devices.

49. In the remark, the Applicant argued in substance that Amberden does not mention a plurality of events.

In response to Applicant’s amendment, Amberden does teach the above limitation.

Referring to pg 7, [0144], Amberden explicitly teaches the notion of various events a user can request. Moreover, an event is broad in a sense that any action client takes would be considered an event, i.e. from movement of mouse to addition/deletion of data from a database. Thus Amberden teaches plurality of events initiated by clients.

50. In the remark, the Applicant argued in substance that Amberden does not mention automatically subscribing a network device to a plurality of events.

In response to Applicant’s amendment, Amberden does teach the above limitation.

Referring to table 1.1, this table among others is an example of an entry within the database, this reflect what happens when user subscribes to a particular event. For instance, when user subscribes to a delete event (line 18), the database uses its sophisticated logics to automatically reflect this change. This is further supported on pg 19, [0301], wherein the automatic subscription process takes place. For section relating to various events within specification please refer to item 49 above. Lastly, Applicant argues about automation of subscriber process, however

Art Unit: 2154

automation requires a client initiated subscription based upon client's needs, the system can not subscribe on behalf of the client without client's consent in one form or another. The invention does not deal with artificial intelligence wherein the device/apparatus can make independent intelligent choices. Thus, Amberden teaches automatically subscribing a network device to a plurality of events based on client's needs.

51. In the remark, Applicant argued in substance that Amberden does not disclose an event bus.

In response to Applicant's amendment, Amberden does teach the above limitation.

Event bus concept is well known. For example, within the portal/gateway, there are hardware buses on the motherboard, event will travel on this link from client to the gateway. On a distributed level, an event bus is the physical link between the client and the gateway/server, after going through the claims as well as Applicant's specification, the 'event bus' acts nothing more than a transportation link, although Amberden does not explicitly state 'event bus', one must exist for the invention to be functional. Thus, Amberden teaches event bus.

52. In the remark, Applicant argued in substance that Amberden does not disclose a device identifier.

In response to Applicant's amendment, Amberden teaches the above limitation.

Referring to pg 16, tables 2.7 and 3.1 for example, the device IDs is the owner ID, where the stream initiated, this is the same as ID of the physical device because it identifies the owner. Thus Amberden does teach device identifier.

53. In the remark, Applicant argued in substance that "searching" and "retrieval" are very different activities than the "receiving events" or the "sending information" recited in claim 1.

In response to Applicant's amendment, Amberden teaches they are one of the same.

Receiving and sending information of Applicant's claim 1 is based from a server perspective,

server receives information and then send information back to client, this is a standard well known procedure in client server situations. Moreover, Amberden discloses searching or sending requests to server, which is same as server receiving; next Amberden teaches retrieval from the server which is the same as server sending information packets back to the client. Thus, Amberden teaches receiving events as well as the sending of information.

54. In the remark, Applicant argues in substance that Amberden does not teach device identifier or an event identifier.

In response to Applicant's amendment, Amberden teaches the above limitation.

Device identifier was discussed under item 52 above. As for event identifier, referring to tables 2.7 and 3.1, Amberden discloses various events dealing with display and texts, these database entries identifies various events being serviced. Thus Amberden teaches the idea of event identifier.

THIS ACTION IS MADE FINAL. Applicant is reined of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

55. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art

with respect to "Method And Apparatus For Mapping Network Events To Names Of Network Devices".

- i. JP 2000-003334 Isomichi et al.
- ii. JP 2000-207362 Fukumoto et al.
- iii. US 5950188 Wildermuth.
- iv. EU 0375664 Mann et al.
- v. US 6694450 Kidder et al.
- vi. "Sun plans new offensive", InfoWorld, Framingham: May 17, 1999. Vol. 21, Iss. 20.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (703) 305-0718. The examiner can normally be reached on M-F 7am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on 703-305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CZ
August 5, 2004



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100